Optimization of E-Learning Learning at Vocational School in Selatan Minahasa
(Case Study at North Sulawesi Shipping Polytechnic)

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Abstract: The development of information technology has entered various aspects of life, including the world of education, especially learning, which has been intervened by the existence of this technology. Along with the development of information technology applications in the world of education, various learning materials have been produced and consumed by learners through the medium of information technology in various packaging forms. In contrast to the traditional learning process, which relies on the teacher as the first and main source of learning, other sources are only complementary to learning activities. This research was carried out at the shipping Polytechnic in North Sulawesi in 2021. The methodology used is qualitative as a research procedure that produces descriptive data in the form of written or spoken words from people and observable behavior. This approach is directed at the background of the individual holistically (whole). The data analysis technique used in this study refers to the concept of Milles & Huberman. Based on the research results are North Sulawesi Shipping Polytechnic in order to remain consistent in planning for optimizing learning, so that teaching and learning activities can be realized as expected, North Sulawesi Shipping Polytechnical always strives to improve the implementation of teaching and learning processes or activities, such as increasing the ability of lecturers or teachers in the field of technology and applying it to participants educate. Evaluations or obstacles faced during practical learning using e-learning applications so that they are improved and their quality is improved.

Keywords: Optimization, learning, shipping polytechnic.

INTRODUCTION

known as the century of openness and globalization. This period is marked by the rapid progress of Information and Communication Technology (ICT) in various fields of life, including education. One of the major influences of ICT in education is the emergence of new

breakthroughs that have begun to utilize computer networks and the internet in the learning process which is often referred to as e-learning or electronic learning. E-learning is a learning that in its implementation uses media or electronic device assistance services in the form of audio, video, computer equipment or a combination of the three (Munir, 2010: 203). From the term E-learning then developed again into online learning (online learning). Online or in a network has the meaning of being connected in a computer network. According to Thome, online learning is learning that utilizes multimedia technology, video, virtual classes, animated online text, voice messages, email, telephone conferences, and online video streaming (Kuntarto, 2017: 101). Online learning can be interpreted as a learning that in its implementation uses the internet, intranet and extranet networks or computers that are directly connected and global in scope (broad).

The development of information technology has entered various aspects of life, including the world of education, especially learning, which has been intervened by the existence of this technology. Along with the development of information technology applications in the world of education, various learning materials have been produced and consumed by learners through the medium of information technology in various packaging forms. In contrast to the traditional learning process, which relies on the teacher as the first and main source of learning, other sources are only complementary to learning activities.

So far, they have known and even used several forms of educational technology to assist learning activities. Some of these tools include OHP, LCD, projector, computer use, and some forms of laboratory equipment. The emergence of assistive devices in educational technology brings new nuances, especially in the implementation of the learning process. The response from the community of users of educational technology is very large, so that in the not too distant future this technology has become so familiar in helping the smooth implementation of education and learning. Utilization of communication technology for educational activities, educational technology and educational media is needed in the context of teaching and learning activities. Because with a scientific, systematic and rational approach, as demanded by this educational technology, the goals of effective and efficient education will be achieved. In a broader context, information and communication technology includes all aspects related to machines (computers and telecommunications) and techniques used to capture (collect), store, manipulate, and deliver. Computers that control all forms of ideas and information play an important role. The collection, processing, storage and dissemination of voice, image, text and number information by a combination of computing and telecommunications based on microelectronics. Information and communication technology combines the field of computer technology. Telecommunications and electronics and information fields such as data, facts and processes.

The rapid development of technology, especially communication technology, has brought major changes in various fields. One of the fields that is also developing as a result of advances in communication technology is the field of education and learning. If in previous times the relationship between educators - students only took place through face-to-face activities, limited by space and time barriers, or through print media, it turns out that now it has been able to be developed through online communication that penetrates the barriers of space and time. Through this electronic media, in addition to the many added values or let's say "advantages" or advantages, from the pedagogical dimension, of course, there are many factors that should be observed, for example, how the shift in the pattern of educational communication between teachers and students, how about learning motivational techniques,

Presidential Regulation Number 82 of 2019 stipulates the Directorate General of Vocational Education as one of the new echelon 1 units at the Ministry of Education and Culture. The policy of changing the structure of the Ministry of Education and Culture is intended to be free to learn. The three main reasons behind this change are the need for integration between formal and non-formal education, streamlining the organization in accordance with the president's directives on deregulation and debureaucratization, and efforts to bring about an output-focused government. This organizational restructuring has an impact on changes in governance, programs and budgets

as a manifestation of one of the government's priorities to create superior, productive, competitive and ready-to-work human resources.

As mandated in Presidential Regulation Number 82 of 2019, Article 17 states that the Directorate General of Vocational Education has the task of carrying out the formulation and implementation of policies in the field of vocational education. The Directorate General of Vocational Education has a very strategic role in the development of Vocational Education in Indonesia and the success of the implementation of the Vocational Education program depends on the formulation of policies taken, implementation and monitoring in the fields of vocational education, vocational education, and skills education and job training. Therefore, the activities of the Directorate General must be carried out in a planned, directed, and sustainable manner in order to be able to encourage the participation of all parties and facilitate the implementation of programs in the field of vocational education. In this regard, the North Sulawesi Shipping Polytechnic is one of the vocational UPT (University Colleges) in the maritime sector that uses the boarding school method, often carrying out practical learning using Labs and Simulators as learning tools.

Based on the initial data obtained by the researcher from a brief but not in-depth interview with the Head of the IT Unit, it was found that the implementation of learning using the E-Learning method still has many obstacles that arise related to optimizing E-Learning learning at the North Sulawesi Shipping Polytechnic in terms of: planning, the organization, implementation, supervision, and evaluation of learning have not been realized properly. Due to problems with the operating procedure of the E-Learning application, there are obstacles during operation or learning takes place, while the evaluation of the learning process has not been achieved. This means that the process of teaching and learning activities is hampered and learning outcomes are not realized, and cadets, Shiva officers, and training participants cannot receive learning properly.

According to the Big Indonesian Dictionary (Depdikbud: 1995: 628) optimization comes from the word optimal which means the best, the highest. Optimization is also interpreted as a measure where all needs can be met from the activities carried out. According to Winardi (1996:363) optimization is a measure that causes the achievement of goals. In general, optimization is the search for the best value from the available functions in a given context.

RESEARCH METHODS

The research approach used in this study is a qualitative approach (qualitative research). Bogdan and Taylor (Moleong, 2007: 4) define qualitative methodology as a research procedure that produces descriptive data in the form of written or spoken words from people and observable behavior. This approach is directed at the background of the individual holistically (whole).

Data analysis according to Patton (Moleong, 2000: 103) is a process of arranging data sequences, organizing them into a pattern, categorization, and basic description units. According to Bogdan and Biklen (Moleong, 2007: 248) data analysis is an effort made by working with data, organizing data, sorting it into manageable units, synthesizing it, looking for and finding patterns, finding what is important and what is learned. , and decide what to tell others.

The data analysis technique used in this study refers to the concept of Milles & Huberman (1992: 20) which is an interactive model that classifies data analysis in three steps, namely:

1. *Data reduction (Data Reduction)*

Data reduction is a process of sorting, focusing on simplifying, abstracting and transforming rough data that emerges from written notes in the field.

2. *Presentation of data (Display Data)*

This data is structured in such a way as to provide the possibility of drawing conclusions and taking action. The form commonly used in the previous qualitative data is in the form of

narrative text.

3. Drawing conclusions (Verification)

In this study will be revealed about the meaning of the data collected. From the data, conclusions that are tentative, vague, rigid and doubtful will be obtained, so these conclusions need to be verified. Verification is done by looking back at the data reduction and data display so that the conclusions drawn do not deviate.

DISCUSSION

In this section, researchers will describe and analyze research findings by using relevant theoretical studies to answer the formulation of research problems.

1. Planning for Optimizing E-Learning Learning in Vocational Schools

Planning is a process of carefully thinking and determining directions, goals and actions while reviewing various resources and appropriate methods/techniques (UPI Education Administration Lecturer Team, 2017; 93). This is in line with the thinking of Ilermino (2017: 88) who says planning is an activity to determine beforehand what must be done, the procedure and the method of implementation to achieve the goal.

The North Sulawesi Shipping Polytechnic has a plan that is quite capable of carrying out teaching and learning processes or activities, in which every lecturer or lecturer is required to make a syllabus, lesson plans, and teaching materials and that is one of the mandatory requirements that must be carried out by lecturers or instructors if they want to implement process or teaching and learning activities.

North Sulawesi Shipping Polytechnic has a Vision, Mission, and Goals to form excellent seafarers and transportation human resources capable of competing at national and international levels, this is confirmed in SK 10a/POLTEKPEL.SULUT 2022 concerning the Establishment of Diploma III Marine Education and Training Programs. During the COVID-19 pandemic, vocational schools are required to complete tasks and responsibilities, namely teaching and learning processes or activities must continue, where teaching and learning processes or activities are more focused on practitioners or practical learning compared to theoretical learning, so practical learning is difficult to implement via online (on the network), as a result the North Sulawesi Shipping Polytechnic designed a practical learning scheme using e-learning applications.

The North Sulawesi Shipping Polytechnic also accommodates various programs related to teaching and learning processes or activities. This begins with the preparation of a program design which is held at the beginning of the school year. UPT (University of Higher Education) has an RKJM (Medium Term Work Plan) which is valid for 5 years. From the RKJM it is prepared RKS/RKAS (School Work Plan/School Budget Work Plan. Each work unit prepares a work program. The work unit in question is the Academic Sector and Curriculum, Student Affairs, Facilities and Infrastructure, UPT Olympiad, UPT Laboratory, UPT Library, Management/Management/Operations and Administration. The programs compiled include core programs and development programs as well as the budget required for each activity.

The curriculum used refers to PK.07 and IMO Model Corse 7.04 which contains the Vocational Diploma III program. Every Tuesday the management leadership and education staff hold regular meetings which discuss planning for the implementation of teaching and learning processes or activities in the North Sulawesi Shipping Polytechnic. The planning of facilities and infrastructure in the North Sulawesi Shipping Polytechnic environment must be very adequate to support the activities of the teaching and learning process or activities of students or cadets. So that students or cadets are very young to understand learning.

Educators and education staff are recruited according to their academic qualifications (teacher qualifications are 27 masters, 27 bachelors and teach according to their fields of knowledge,

while education staff: 52 high school and 37 bachelors).). This shows the implementation of rational values, commitment and thinking far ahead. This means that in order to achieve goals, reasonable considerations are made to place people in certain positions. (Ministry of National Education, 2010). The job description is clear, has a time table for learning activities. The guidance for educators and education staff is carried out by the Director, North Sulawesi Shipping Polytechnic and from the Transportation Human Resources Agency.

Older non-permanent teachers do not understand e-learning applications, because they often go down to the field rather than teaching using the internet network which is currently used in teaching and learning processes or activities.

CONCLUSION

Based on data analysis and discussion of research results, the authors formulate several conclusions as follows:

1. Planning for Optimizing E-Learning Learning at Vocational Schools at the Shipping Polytechnic of North Sulawesi has a Vision, Mission, and Objectives to form excellent Seafarers and Transportation Human Resources capable of competing at national and international levels, this is confirmed in SK 10a/ POLTEKPEL.SULUT 2022 concerning Determination Diploma III Marine Education and Training Program. which is where teaching and learning processes or activities are more focused on practitioners or practical learning compared to theoretical learning, so practical learning is difficult to carry out online (on a network), as a result the North Sulawesi Shipping Polytechnic designed a practical learning scheme using e-learning applications.

2. Implementation of Optimizing E-Learning Learning at Vocational Schools at the Shipping Polytechnic of North Sulawesi has carried out teaching and learning processes or activities in which lecturers or teachers have completed their obligations as teachers in terms of collecting teaching materials, sulabus and lesson plans, so that teaching and learning processes or activities can be carried out smoothly. Thus it can be said that the implementation of integrated teaching and learning processes or activities in learning at the Shipping Polytechnic has been prepared as well as possible by the UPT (University of Higher Education). The readiness of learning tools, both syllabus, lesson plans and teaching materials, really supports the teaching and learning process or activities. On the other hand, through the preparation of these three things, lecturers become more responsible and innovative.

3. Evaluation of Optimizing E-Learning Learning in Vocational Schools when teaching and learning processes or activities using e-learning applications are implemented, theoretical learning has no problems at all and is very much realized as planned when the teaching and learning process or activities are carried out but the quality needs to be improved e-learning application. Evaluation during the teaching and learning process or activities using e-learning applications is carried out, practical learning still has problems and several obstacles, namely the students have not been able to fully follow the learning, because at the time of practical learning used are communication tools in the form of computers and laptops, and there are still some students or cadets who do not have laptops and computers.

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